



[10191/3951]

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants : Harald MICHI et al.

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CRUISE CONTROL HAVING A  
STOP-AND-GO FUNCTION

Art Unit 3663

Examiner : Ronnie M. MANCHO

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**APPELLANTS' APPEAL BRIEF**  
**UNDER 37 C.F.R. § 41.37**

S I R :

Applicants filed a Notice of Appeal dated February 12, 2007 (received at the Patent Office on February 14, 2007), appealing from the Final Office Action dated August 14, 2006, in which claims 11 and 14-20 of the above-identified application were finally rejected. This Brief is submitted by Applicants in support of their appeal.

## **I. REAL PARTY IN INTEREST**

The real party in interest in the present appeal is Robert Bosch GmbH of Stuttgart, Germany. Robert Bosch GmbH is the assignee of the entire right, title, and interest in the present application.

## **II. RELATED APPEALS AND INTERFERENCES**

No appeal or interference which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in the pending appeal is known to exist to the undersigned attorney or is believed by the undersigned attorney to be known to exist to Applicants.

## **III. STATUS OF CLAIMS**

Claims 11 and 14-20 are pending in the present application, and claims 11 and 14-20 are being appealed. Claims 1-10 were canceled in the Preliminary Amendment mailed on September 9, 2004. Claims 12-13 were canceled in the Amendment mailed on April 5, 2006. Among the pending claims, claim 11 is an independent claim, and claims 14-20 ultimately depend on claim 11.

In the Final Office Action mailed on August 14, 2006, the Examiner rejected claims 11 and 14-20 under three separate ground of rejection: a) 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; b) 35 U.S.C. § 112, second paragraph, as failing to comply with the enablement requirement; c) 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,560,525 ("Joyce"). In the Advisory Action dated February 28, 2007, the Examiner indicated that the "112 rejections are withdrawn." Accordingly, the only ground of rejection to be reviewed on this appeal is the anticipation rejection under 35 U.S.C. § 102(e).

## **IV. STATUS OF AMENDMENTS**

No claim amendment has been made subsequent to the final Office Action mailed on August 14, 2006.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

With respect to independent claim 11, the present invention provides a cruise control system (see Fig. 1) for a motor vehicle, comprising:

a sensor device (Fig. 1, element 10) for measuring an operating parameter of the motor vehicle and for measuring a distance to an object located in front of the motor vehicle; (original Specification, p. 4, l. 31 – p. 5, l. 7); and

a controller (Fig. 1, element 12) for controlling one of a speed and an acceleration of the motor vehicle as a function of the measured operating parameter and the measured distance to the object, (p. 5, l. 7-11), wherein:

the controller includes a stop-and-go function for automatically controlling driving off, rolling, and stopping as a function of a movement of the object, (p. 6, l. 22-24), and

the controller continuously checks the sensor device during the stop-and-go operation (see Fig. 3; p. 6, l. 18-19) for at least one predefined condition, wherein the at least one predefined condition includes a turning operation of the motor vehicle (p. 3, l. 3-5), and wherein the turning operation is detected when a turn radius is smaller than a predefined threshold value (Fig. 3, step S3; p. 3, l. 7-8; p. 6, l. 28-31; p. 7, l. 9-10), the turn radius being determined by an evaluation of one of a yaw rate signal and a steering angle signal (p. 3, l. 9-13), and in the presence of the at least one predefined condition, initiates a procedure for the shutdown of the stop-and-go function (Fig. 3, steps S5-S9; p. 3, l. 31 – p. 4, l. 5; p. 7, l. 9 – p. 8, l. 6).

## **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The following ground of rejection is presented for review on appeal in this case:

(A) Whether pending claims 11 and 14-20 are anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,560,525 ("Joyce").

## VII. ARGUMENTS

Claims 11 and 14-20 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,560,525 ("Joyce"). Applicants respectfully submit that Joyce fails to anticipate claims 11 and 14-20, for the reasons explained below.

To anticipate a claim under 35 U.S.C. §102(e), a single prior art reference must identically disclose each and every claim feature. See Lindeman Machinenfabrik v. American Hoist and Derrick, 730 F.2d 1452, 1458 (Fed. Cir. 1984). If any claim feature is absent from a prior art reference, it cannot anticipate the claim. See Rowe v. Dror, 112 F.3d 473, 478 (Fed. Cir. 1997). Still further, not only must each of the claim features be identically described, an anticipatory reference must also **enable** a person having ordinary skill in the art to practice the claimed subject matter. (See Akzo, N.V. v. U.S.I.T.C., 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986)). To the extent that the Examiner may be relying on the doctrine of inherent disclosure for the anticipation rejection, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art." (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Amended claim 11 recites, in relevant parts, "a sensor device for measuring an operating parameter of the motor vehicle and for measuring a distance to an object located in front of the motor vehicle"; "a controller for controlling one of a speed and an acceleration of the motor vehicle as a function of the measured operating parameter and the measured distance [[data]] to the object"; "the controller includes a stop-and-go function . . . , and the **controller continuously checks the sensor device during the stop-and-go operation for at least one predefined condition, wherein the at least one predefined condition includes a turning operation of the motor vehicle, and wherein the turning operation is detected when a turn radius is smaller than a predefined threshold value, the turn radius being determined by an evaluation of one of a yaw rate signal and a steering angle signal, and in the presence of the at least one predefined condition, initiates a procedure for the shutdown of the stop-and-go function.**" It should be noted that the "turning operation of the motor vehicle" recited in claim 11 is the turning operation of the host vehicle that is controlled by the claimed "controller."

In support of the rejection, the Examiner summarily concludes on pages 4-5 of the Final Office Action that Joyce teaches the following claimed features: “the controller continuously checks the sensor device during the stop-and-go operation for at least one predefined condition, wherein the at least one predefined condition includes a turning operation of the motor vehicle, and wherein the turning operation is detected when a turn radius is smaller than a predefined threshold value, the turn radius being determined by an evaluation of one of a yaw rate signal and a steering angle signal, and in the presence of the at least one predefined condition, initiates a procedure for the shutdown of the stop-and-go function.” However, the Examiner does not cite any support for this statement. In order to remedy this deficiency, the Examiner contends in the Advisory Action of February 28, 2007, that “Fig. 1 clearly discloses a stop-and-go controller.” Furthermore, the Examiner contends in the Advisory Action that the prior art anticipates the claimed invention because the prior art “is capable of being programmed to perform the intended use limitations” in the claimed invention, and that Applicants have “not argued that the prior art controller cannot be programmed to perform the method limitations.” In addition, the Examiner further contends in the Advisory Action that “Applicants’ arguments are drawn to method limitations within an apparatus claim,” and that in order to “overcome the rejection, [Applicants] will need to structurally define his apparatus over the prior art.” The Examiner’s essentially arguing that the claimed functional limitations used to define the controller may be met by the prior art simply because it may be theoretically possible for the prior art to be somehow programmed to meet the claimed functional limitations, and that it is Applicants’ burden to prove “that the prior art controller cannot be programmed to perform the method limitations.” Applicants will discuss below the fatal flaws in the Examiner’s arguments.

Initially, to the extent the Examiner contends that the prior art anticipates the claimed invention because the prior art “is capable of being programmed” to meet the claimed functional limitations in the claimed invention, Applicants note that decisions rendered by the Federal Circuit and its predecessor, the Court of Customs and Patent Appeals, unequivocally contradict the Examiner’s position: “[I]f a machine is programmed in a certain new and unobvious way, it is physically different from the machine without that program; its memory elements are differently arranged. The fact that these physical changes are invisible to the eye should not tempt the conclusion that the machine has not been changed.” In re Lowry, 32 F.3d 1579, 1583 (Fed. Cir. 1994) (citing Application of Bernhart, 417 F.2d 1395, 1399 (CCPA 1969)). Accordingly, it is absolutely clear that mere possibility that the prior art is capable of being programmed to meet the claimed limitations” is insufficient to support a rejection; instead, the

Examiner must show that the functional limitations are disclosed explicitly or inherently in the prior art (for an anticipation rejection), or at least that it would have been readily obvious to program the prior art to achieve the claimed functional limitations (for an obviousness rejection, which is not the basis for the rejection being appealed in this Appeal). However, the Examiner has clearly not met any of these requirements, as explained in further detail below.

With respect to the explicit disclosure of Joyce, the Examiner cites col. 3, lines 15 ff., as teaching the claimed features of independent claim 11. However, it is absolutely clear that nothing in Joyce, including the cited section, actually teaches the claimed features. For example, in col. 3 of Joyce, there is mention of only “various indicators 28” (col. 3, line 34), but this does not relate to suggestions for a turning maneuver. The phrase “various indicators” is elucidated in greater detail in col. 5, l. 11-20 of Joyce, and this phrase merely refers to driver warnings which inform the driver about situations such as the standstill of the controlled vehicle and the driving-off of the preceding target object. Although Joyce discusses in column 5, lines 34-56 (in connection with Figs. 4 and 5) situations in which a controlled vehicle 12 outfitted with the ACC system 10 is following a preceding vehicle (66, 70) traveling in front the controlled vehicle 12, and the preceding vehicle (66, 70) performs a turning maneuver, there is absolutely no suggestion in Joyce that the controlled vehicle 12, i.e., the following vehicle, is equipped with a “**controller [that] continuously checks the sensor device during the stop-and-go operation**” for a **turning operation of the controlled vehicle**. In addition, there is absolutely no suggestion in Joyce that “**the turning operation is detected when a turn radius is smaller than a predefined threshold value, the turn radius being determined by an evaluation of one of a yaw rate signal and a steering angle signal**.” Furthermore, there is no suggestion in Joyce that, upon detection of the turning operation of the controlled vehicle, a procedure for the shutdown of the stop-and-go function is initiated. Joyce merely indicates that, if the preceding vehicle is turning, the following controlled vehicle is held to a standstill, or alternatively, follows behind the preceding vehicle that is turning off.

Independent of the above, to the extent the Examiner suggests that it is Applicants’ burden to prove “that the prior art controller cannot be programmed to perform the method limitations,” Applicants respectfully submit that this contention is completely incorrect. In order to establish an anticipation rejection, the Examiner must show that each claimed element is taught either explicitly or inherently by the allegedly anticipatory.

To the extent the Examiner may be relying on the doctrine of inherent disclosure, the Examiner must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art.” (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)). However, the only basis relied upon by the Examiner for the rejection is that the prior art “is capable of being programmed” to meet the claimed functional limitations, which assertion clearly does not provide any “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art.”

Independent of the above, Applicants note in determining whether a patent claim is invalid as being anticipated by prior art, **functional language** such as “adapted to” or “for performing” **cannot be disregarded**. See Pac-Tec, Inc. v. Amerace Corp., 903 F.2d 796, 801 (Fed. Cir. 1990), cert. denied, 502 U.S. 808 (1991). This rule has been consistently upheld by the C.C.P.A. and its successor court, the C.A.F.C., since the seminal case of In re Swinehart, 439 F.2d 210, 212 (C.C.P.A. 1971), which unequivocally indicated that regarding “[t]he fact that an attempt is being made to define something . . . by what it does rather than what it is . . . , there is nothing intrinsically wrong with the use of such a technique in drafting patent claims.” As an example of more recent C.A.F.C. decision, In re Schreiber, 128 F.3d 1473, 1478, 44 U.S.P.Q.2d 1429, 1432 (Fed. Cir. 1997), clearly indicates that “a patent applicant is free to recite features of an apparatus either structurally or functionally.” Applicants further note that this rule is explicitly stated in the M.P.E.P, e.g., M.P.E.P. 2173.05(g). Accordingly, Applicants note that the functional limitations recited in the present claims must be taught by the prior art in order to establish anticipation.

Independent of the above, Applicants note that an anticipatory reference must not only identically teach each of the claim features, but must also **enable** a person having ordinary skill in the art to practice the claimed subject matter. (See Akzo, N.V. v. U.S.I.T.C., 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986)). Applicants note that there is absolutely no basis for the Examiner to contend that the teachings of Joyce would enable a person having ordinary skill in the art to practice the claimed subject matter, particularly since Joyce does not even contemplate the claimed limitations, i.e., “**controller [that] continuously checks the sensor device during the stop-and-go operation**” for a **turning operation of the controlled vehicle**; “**the turning operation is detected when a turn radius is smaller than a predefined threshold value, the**

turn radius being determined by an evaluation of one of a yaw rate signal and a steering angle signal"; and that, upon detection of the turning operation of the controlled vehicle, a procedure for the shutdown of the stop-and-go function is initiated.

For the foregoing reasons, Applicants respectfully submit that claim 11 and its dependent claims 14-20 are not anticipated by Joyce. Reversal of the anticipation rejection of claims 11 and 14-20 is respectfully requested.

### VIII. CONCLUSION

For the foregoing reasons, it is respectfully submitted that the final rejections of claims 11 and 14-20 should be reversed.

Claims Appendix, Evidence Appendix and Related Proceedings Appendix sections are found in the attached pages.

Respectfully submitted,

KENYON & KENYON LLP

 (R. NO. 36,197)

Dated: September 14, 2007

By: JOSE LEE for Gerard Messina  
Gerard A. Messina  
Reg. No. 35,952  
One Broadway  
New York, New York 10004  
(212) 425-7200  
**CUSTOMER NO. 26646**



**APPENDIX TO APPELLANTS' APPEAL BRIEF**  
**UNDER 37 C.F.R. § 41.37**

**CLAIMS APPENDIX**

The claims involved in this appeal, claims 11 and 14-20, in their current form after entry of all amendments presented during the course of prosecution, are set forth below:

11. A cruise control system for a motor vehicle, comprising:

a sensor device for measuring an operating parameter of the motor vehicle and for measuring a distance to an object located in front of the motor vehicle; and

a controller for controlling one of a speed and an acceleration of the motor vehicle as a function of the measured operating parameter and the measured distance to the object, wherein:

the controller includes a stop-and-go function for automatically controlling driving off, rolling, and stopping as a function of a movement of the object, and

the controller continuously checks the sensor device during the stop-and-go operation for at least one predefined condition, wherein the at least one predefined condition includes a turning operation of the motor vehicle, and wherein the turning operation is detected when a turn radius is smaller than a predefined threshold value, the turn radius being determined by an evaluation of one of a yaw rate signal and a steering angle signal, and in the presence of the at least one predefined condition, initiates a procedure for the shutdown of the stop-and-go function.

14. The cruise control system as recited in Claim 11, wherein the turning operation is detected when the turn radius is constantly smaller than the predefined threshold value during a predefined time interval.

15. The cruise control system as recited in Claim 11, wherein the at least one predefined condition further includes an instantaneous speed of the motor vehicle being essentially equal to an intended speed in effect for the stop-and-go function during a predefined time interval, and no target object being detected during the predefined time interval.

16. The cruise control system as recited in Claim 11, wherein the at least one predefined condition further includes an instantaneous speed of the motor vehicle being lower than a limiting speed permitted for the stop-and-go function during a predefined time interval, and no target object being detected during the predefined time interval.

17. The cruise control system as recited in Claim 11, wherein the procedure for shutdown of the stop-and-go function includes an output of a request to a driver to one of take over control of the motor vehicle and, provided a condition is met, to switch over to a regular cruise control mode and distance control mode.

18. The cruise control system as recited in Claim 17, wherein the request includes an acoustic signal.

19. The cruise control system as recited in Claim 11, wherein the procedure for shutdown of the stop-and-go function includes automatically regulating the speed of the motor vehicle one of down to zero and to a low speed value.

20. The cruise control system as recited in Claim 17, wherein the speed is automatically regulated down after a certain waiting time subsequent to the output of the request has elapsed.

### **EVIDENCE APPENDIX**

In the present application, there has been no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131 or 1.132, or other evidence entered by the Examiner and relied upon by Appellants in the present appeal.

### **RELATED PROCEEDINGS APPENDIX**

No appeal or interference which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in the pending appeal is known to exist.